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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,613	03/30/2004	Shinpei Nagatani	1324.70221	4370

7590 07/25/2008  
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EXAMINER
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MA, CALVIN

ART UNIT	PAPER NUMBER
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2629

MAIL DATE	DELIVERY MODE
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07/25/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/813,613	<b>Applicant(s)</b> NAGATANI ET AL.	
	<b>Examiner</b> CALVIN C. MA	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim et al. (US Pub: 2002/0001184)

As to claim 1, Kim discloses an illumination device (600) comprising:

a plurality of optical waveguides (i.e. the center waveguide formed by 500, 400 and 300, each of the lamp in the stackable lamp assembly) (see Fig. 1, [0047]) each including a light diffusion reflecting surface (i.e. the diffusive films 500, reflective film 300 and the cavity that is formed by reflective area around the lamp including 250, 760, and 310 which in combination with the material filling the rest of the lamp assembly forms the diffusion reflecting surface) (see Fig. 1, 3, [0047], [0052]) for diffusing and reflecting guided light, a light emission surface for emitting the diffused and reflected light (i.e. the various lamps in the multiple assemblies 200), and a plurality of light-emitting areas (i.e. each of the lamp assembly 200) in which the light diffusion reflecting surface is formed and which are separated from each other, the plurality of optical waveguides being stacked (i.e. the central wave guide and the two side assembly stacks which has lamps

which functions as waveguide and are stacked together) (see Fig. 1, 3, 10, [0037], [0047], [0068]) so that the plurality of light-emitting areas are disposed almost complementarily when viewed in a direction vertical to the light emission surface (i.e. the multiple lamps in the assembly are complementarily when viewed vertically) (see Fig. 3, [0047]);

and a plurality of light sources (i.e. the light wires that reside inside each of the lamp) respectively disposed at ends of the plurality of optical waveguides (i.e. the lamps have the lamp wires at the end connection the two outside connections) (see Fig. 2, [0039], [0040], [0041]).

As to claim 2, Kim teaches an illumination device according to claim 1, wherein the light diffusion reflection surfaces are disposed not to overlap with each other between the plurality of optical waveguides when viewed in the direction vertical to the light emission surface (i.e. the diffusion film are not of the same size as the size as the side assemblies and do not overlap each other completely) (see Fig. 1, 7, [0062])

As to claim 3, Kim teaches an illumination device according to claim 1, wherein the light diffusion reflection surfaces are disposed to partially overlap with each other between the plurality of optical waveguides when viewed in the direction vertical to the light emission surface (i.e. diffusion reflection surface partially overlap in the center and

when viewed vertically the side assembly and the center area also partially overlap)  
(see Fig. 1, 7, [0062]).

As to claim 27, Kim teaches a display apparatus comprising a display panel including a display area and an illumination device for illuminating the display area, wherein the illumination device is the illumination device according to claim 1 (see Fig. 1, [0035]).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Beeteson (US Patent: 5,796,382).

As to claim 4, Kim teaches an illumination device according to claim 1, but does not explicitly teach further comprising a light source control system for sequentially intermittently turning on the plurality of light sources. Beeteson teaches a light source

control system for sequentially intermittently turning on the plurality of light sources (see Fig. 2, Col. 2, Line 37 – Col. 3, Line 17).

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to have used the independent light controlling capability to the overall illumination system of Kim in order to reduce power consumption (see Beeteson, Col. 1, Lines 57-60)

### ***Response to Arguments***

5. Applicant's arguments filed 04/08/2008 have been fully considered but they are not persuasive.

The applicant argues in page 3 of the response regarding claims 1-4, and 27 that only one optical wave guide is disclosed. The examiner disagree with this analyses since the term optical wave guide is a very broad one that can refer to a cavity that allow optical wave to be guided, and in the case of the electronic display back lighting the lamps are the light source where wave guides are the conductors that bring the light energy toward the front of the display to the user. In this way the 200 light assembly structure on both side of the main wave guide 400 are wave guides seen in Figure 1 and 3 of the prior art Kim. Here, the two lamps inside the light assembly 200 generate light energy which is guided by the cavity surrounding the two lamps by further projected toward the center cavity 400 which then guide the light toward the user. As seen in figure 3 the side light assembly and the center cavity are indeed stack together.

As to applicant further argument regarding the above said claims in page 4, second paragraph or the response, that Kim fails to disclose or suggest "a plurality of optical waveguides, with each waveguide having a light diffusion reflecting surface for diffusing and reflecting guided light ... formed are separating from each other. The examiner disagree with is analyses because the three cavity that are wave guide for the backlighting system in Kim does indeed have diffusion reflecting surface that are located separately for each of the wave guides. The central wave guide has such surface 300 and the side units have the surface on the side that reflect and diffusing the light energy from the lamps toward the center of the backlight unit.

As to the applicant further argument regarding the above said claims in page 4, third paragraph in the response, that Kim fails to disclose or suggest multiple optical waveguides, or to have a plurality of light sources at ends of each of the optical wave guides, the examiner disagrees since the center cavity 300 terminate at the ends which is directly facing the light source from the light assembly 200, and the light assembly having the lamps from one end to the other ends. In this way Kim meets the claimed limitations.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Calvin Ma whose telephone number is (571)270-1713. The examiner can normally be reached on Monday - Friday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571)272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

July 20, 2008  
Calvin Ma.

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